

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**



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Promote a Partnership Framework between Energy)	
Investor Owned Utilities and the Water Sector to)	Rulemaking 13-12-011
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ASSOCIATION OF CALIFORNIA WATER AGENCIES AND THE
CALIFORNIA MUNICIPAL UTILITIES ASSOCIATION ON ASSIGNED
COMMISSIONER'S RULING ENTERING WORKSHOP REPORTS INTO THE
RECORD AND SEEKING COMMENTS**

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October 21, 2016

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Pursuant to the Rules of Practice and Procedure of the California Public Utilities Commission (“Commission”), the *Assigned Commissioner’s Ruling Entering Workshop Reports into the Record and Seeking Comments* (“ACR”) on October 5, 2016, and the October 10, 2016 *Email Ruling Granting Extension of Time to File Comments in the Water-Energy Nexus Proceeding*, the Association of California Water Agencies (“ACWA”) and the California Municipal Utilities Association (“CMUA”) respectfully provide the following comments.

I. INTRODUCTION AND PROCEDURAL BACKGROUND

ACWA is a statewide association of 430 public water agencies that together supply over ninety percent of the water delivered in California for residential, agricultural, and industrial uses. CMUA is a statewide association representing publicly-owned electric utilities and water agencies, which deliver water to over seventy percent of Californians. Recognizing the importance of water and energy issues in California, ACWA and CMUA have continued to actively participate in this Water-Energy Nexus proceeding. In the October 5, 2016 ACR, the

Commission invites parties to comment on six proceeding workshop reports and address major themes in the proceeding (such as watershed management and water efficiency), all in the context of the water-energy-communications nexus. In light of the October 5, 2016 ACR and later extensions, ACWA and CMUA provide these comments.

II. JOINT COMMENTS OF ACWA AND CMUA

ACWA and CMUA have members throughout the state including in remote areas where access to high-speed internet and other advanced technologies is limited or unreliable. While we recognize and appreciate the importance of improving access to advanced communication technologies in a timely manner for all our water agency members, we previously recommended that the Commission include the communications aspect of the water-energy nexus in a separate proceeding. ACWA and CMUA continue to believe this issue should also be incorporated in a future, separate action that can fully explore the challenges and opportunities associated with this topic. In addition, while we recognize that the scope of this Proceeding was amended in April 2015 to include some of the concepts discussed in this Ruling, we are concerned that the discussion and questions in some of the meta-themes could further expand the scope. Many important issues have been highlighted and addressed throughout this Proceeding and we encourage the Commission to continue focusing on the existing tracks including the original goal of increasing investments in water conservation through partnerships between water agencies and investor-owned utilities (IOUs).

ACWA and CMUA also offer the following comments on specific meta-themes and questions outlined in the ruling.

A. Meta-themes 3.1 and 3.4 – Communications and Distributed Water Facility, Water Production, and Watershed Communications Needs

As water agencies review the opportunities to enhance communications protocols, they must consider their primary mission, which is to deliver a safe, reliable and affordable water supply in an environmentally responsible manner. However, communication needs for water facility, water production, and watershed management optimization play a significant role in accomplishing that mission and assisting in water agencies' daily operations. As further elucidated in the data meta-theme including our Attachment A, water agencies regularly collaborate through local and regional partnerships to share information. In addition, water agencies provide multiple types of monitoring data electronically to state and federal agencies including compliance with water quality standards, groundwater withdrawals and monthly water production amounts to measure conservation efforts. Most water agencies also use Supervisory Control and Data Acquisition ("SCADA") systems for remote monitoring and control of their operations. When feasible, water agencies that use SCADA have increasingly adopted structures that include cloud computing. These reporting requirements and new approaches to sharing information internally and with other stakeholders often requires additional access to high-speed Internet, particularly for real-time monitoring, which often puts remote agencies at a severe disadvantage. Increased dependence on electronic reporting and cloud storage also can make water agencies vulnerable to network attacks. Because California's water agencies are trusted with the public health of millions of Californians, it is critical that the agencies can secure and effectively communicate the information.

ACWA and CMUA believe this issue is a significant concern that should be explored and fully addressed in the future through a multi-agency effort. The Commission can play an essential role by advancing solutions that support broadband access throughout the state to

ensure all water agencies can utilize available technology and comply with existing and future requirements including the necessary protocols to secure their information. It is worth exploring whether a tariff filed by carriers of last resort could help facilitate the management of both water and energy through increased access.

Also, because water service is so closely tied to public health and quality of life for Californians, we support the Commission reviewing ways to leverage deployment of communications facilities funded through programs such as the Connect America Fund for improving broadband access to water providers. However, we do not have a specific recommendation for how to leverage those programs at this time.

B. Meta-theme 3.2 -- Agricultural Sector Needs Communications Facilities and Services to Optimize Water and Energy Needs

California's agricultural sector has made incredible strides in water-use efficiency measures and advanced technologies but additional opportunities exist including hydraulic pump testing and retrofit programs to increase pump efficiency and grants and loans for irrigation efficiency upgrades. This includes the CDFA SWEEP program, which can assist agricultural water users with increased water and energy efficiency. However, as we previously noted, both ACWA and CMUA have member agencies in remote areas with limited access to even basic cellular networks so at this time there may be limited opportunities for agricultural water users to install more advanced technologies that require connection to a cellular network or high-speed internet in order to function.

The current state and federal communications expansion programs are a good first step towards improving this coverage so that agricultural water users can take advantage of new technologies to improve water management. ACWA's Clean Water Subcommittee chair Sargeant Green from CSU Fresno jointly facilitated a panel discussion on this topic at the

Summit on Water Technology & the California Drought, included in this Ruling as Attachment C.

C. Meta-theme 3.5 -- Watershed Management

Both ACWA and CMUA recognize and agree that sustainable watershed management is a critical component of a reliable water supply in California. In fact, ACWA identified headwaters as a priority in its 2016 Strategic and Business Plan and developed a set of policy principles and policy framework regarding improved management of California's headwaters. In addition, many water agencies have voluntarily entered into local forest management projects to prevent the catastrophic impacts that can occur as the result of wildfire.

While we acknowledge that headwaters management reduces wildfire and debris flow risk and reduces risk to ratepayers and facilities, these benefits are very specific to local systems and local ecological conditions. Headwaters management can theoretically increase water supply availability but there is a lack of scientific evidence to support any quantification of these impacts. Some utilities may find it beneficial to enter into voluntary partnerships with forest managers, such as the United States Forest Service, to pilot timber management projects. The Commission can facilitate these partnerships by supporting dedicated technologies that will help advance these projects and working to ensure cellular network and internet access is available in remote areas. However, the need for and benefit from these types of projects are highly variable and localized so requiring energy utilities and investor-owned water utilities to enter into these types of partnerships would be premature. As the Commission has identified through Rulings and workshops, improving headwaters management is a complex issue and ACWA and CMUA believe this issue would be more appropriate in an additional, separate Proceeding to fully address the multiple challenges and opportunities.

D. Meta-theme 3.7 – Reduce Leaks

Reducing water loss through leaks is a key element in “making conservation a California way of life.” It is highlighted in the Governor’s Executive Order (“EO”) B-37-16 as part of a long-term water-use efficiency framework and includes actions to be taken by the Department of Water Resources (“DWR”), the State Water Resources Control Board (“SWRCB”), the California Energy Commission (“CEC”) and the California Public Utilities Commission. The EO states that “The CPUC shall order investor-owned water utilities to accelerate work to minimize leaks.”

Embedded within the EO’s mandates are several existing requirements or new laws that are being implemented by DWR and the SWRCB. For instance, Senate Bill 555 (Stat. 2015) requires all urban retail water suppliers in the state to submit a completed and validated water loss audit annually to DWR beginning October 2017. In addition, Senate Bill 1420 established that urban water suppliers submit a report with their urban water management plans that quantifies water system losses. Currently DWR is developing regulations by the end of 2016 that will outline requirements for the submittal of annual validated water loss audits. The SWRCB provided funding for technical assistance through CA-NV AWWA to help retail water suppliers submit these audits and is required to develop water loss performance standards in 2019. Further, the California Energy Commission has initiated their process to “certify innovative water conservation and water loss detection and control technologies that also increase energy efficiency.”

ACWA and CMUA believe the Commission can play an important role as well by adopting the frameworks developed by DWR and CEC to target and address water system leaks within the distribution systems of investor-owned water utilities. Actively participating in those

efforts and offering the IOU perspective will be key to the successful implementation of statewide water loss programs that are tailored to the circumstances of each community.

Regarding the questions about communications and water loss, ACWA and CMUA agree that improved connectivity is critical to the future of California's water loss programs, particularly in rural areas where signals and system access is limited. Once DWR's water loss audit validation regulations are complete and water suppliers have submitted initial data, we agree and recommend that the Commission arrange a meet and confer between energy, water and communications utilities to advance appropriate technologies and enhanced communications to optimize water management and reduce leaks within the adopted regulatory structure. Because these rules have yet to be established, we believe it is premature to address this meta-theme further including ordering carriers of last resort to institute new tariffs or to discuss how to leverage Connect America Fund dollars to support leak detection.

E. Meta-theme 3.8 – Data

As noted earlier, water managers' primary mission is to ensure a safe and reliable supply for their customers. ACWA and CMUA have provided comments to the Commission on multiple occasions regarding the value of information about embedded energy in water production, conveyance, and distribution. While embedded energy is of interest to water agencies, water agencies' flexibility to reduce the amount of energy used by their systems is highly variable depending on the geography of their service areas, the socioeconomic demographics of their customer base, current hydrologic conditions, and the quality of various water supplies, among a number of other factors. Water agencies have invested heavily in supply diversification, storage, and water conservation to ensure reliability for the future. While investments in advanced

metering infrastructure and other data analytics can be made in some circumstances, they are not always the most cost-effective means to ensure long-term water-use efficiency and reliability.

Additionally, most water agencies participate in existing regional data-sharing collaboratives through Integrated Regional Water Management and other stakeholder efforts, and have the shared goal of advancing local and regional sustainability. Ordering greater use or aggregated level sharing of water data could undermine existing data sharing initiatives and act as a barrier to innovation and private investment.

ACWA and CMUA submitted detailed comments on data sharing to the UC Davis Center for Water and Energy Efficiency in response to the June 9-10, 2016 workshop that is included in this ruling as Attachment E. We are disappointed that UC Davis did not accept any revisions based on stakeholder comments and we have attached a copy of these comments (Attachment A) for reference and review by the Commission when considering this meta-theme.

F. 3.9 – Addition of Other Meta-Themes

ACWA and CMUA agree that many opportunities exist for advancing the water-energy nexus, including some of the activities accomplished throughout this Proceeding. We acknowledge that communication needs and other broad issues related to the water-energy nexus including the drought have already been incorporated into the proceeding and this Ruling is intended to capture concepts related to the water-energy-communications nexus. However, because the interaction between water and energy is multi-layered and complex, thoughtful consideration should be given to the introduction of new concepts or themes, particularly at this stage of the process. ACWA and CMUA do not support including any additional meta-themes.

III. CONCLUSION

As we have noted in previous comments, ACWA and CMUA support the Commission's efforts to further understand and quantify the water-energy nexus. The Commission has an important role to play as our public water agency members consistently strive to achieve water and energy savings through responsible and sound water and energy management practices. ACWA and CMUA supports many of the Commission's activities including the development of a partnership framework between IOUs and the water sector to co-fund programs targeted to reduce energy consumption by the water sector in supplying, conveying, treating, and distributing water. We look forward to working with the Commission on this and other water-energy nexus issues.

ACWA and CMUA appreciate the opportunity to provide joint comments in this proceeding, and thank the Commission for its review and consideration of the joint comments.

Respectfully submitted,

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Dated: October 21, 2016

ATTACHMENT A



**Association
of California
Water Agencies**
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Sent via ELECTRONIC MAIL to skohong@ucdavis.edu

August 1, 2016

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**Re: ACWA and CMUA Comments on UC Davis Center for Water-Energy Efficiency's
Draft White Paper "Establishing a Cloud-Based Water and Energy Data Platform"**

Dear Ms. Hong:

The Association of California Water Agencies ("ACWA") and California Municipal Utilities Association ("CMUA") appreciate having the opportunity to provide feedback on the draft UC Davis Center for Water-Energy Efficiency's white paper entitled "Establishing a Cloud-Based Water and Energy Data Platform" ("draft white paper"). ACWA and CMUA attended the June 2016 workshop upon which the draft paper was developed.

I. Introduction

ACWA represents nearly 430 public water agencies that collectively supply approximately 90% of the water delivered for domestic, agricultural and industrial uses in California. CMUA represents 40 public water agency members that deliver water to over 70% of Californians. ACWA and CMUA members' primary responsibility is to provide a safe, reliable, and affordable water supply to their customers. As statewide associations that represent the interests of a broad array of wholesale, retail, urban, and rural water utilities that serve diverse communities throughout California, ACWA and CMUA share similar concerns with the draft white paper, which we outline below.

II. Comments

ACWA and CMUA are concerned about a number of statements made in the paper that appear to overgeneralize the position of water agencies in California, and that overstate the need for the data sharing platform that is being proposed.

- a. The draft white paper does not define the agencies that represent the “Water Utility Perspective” referenced throughout the document nor how this perspective was developed.*

References are made throughout the draft white paper to the “Water Utility Perspective.” However, the draft white paper does not explain the basis upon which this perspective was formed, nor which utilities this is supposed to represent. While the June workshop included one panel discussion with five water agencies, the draft white paper recognizes that there is “broad heterogeneity of water agencies in California” that “vary widely in size, availability of resources (monetary and institutional), IT sophistication, and customer communities” (at pg.6). We recommend that the draft white paper be adjusted to reflect the composition of the panel and any additional agencies that participated in the development of the draft white paper, and to clarify that this perspective does not necessarily represent the water community as a whole.

An example of the diverse perspectives of water agencies in California is outlined on page 9 of the draft white paper, which notes that the water utility perspective is that “it is imperative to move beyond the traditional view of “adequate service” (in terms of safety, reliability, and affordability) by incorporating additional performance targets related to providing water in a more broadly sustainable manner.” The draft paper proceeds to note that “this includes developing a deeper understanding of how water systems connect to GHGs, embedded energy, environmental protection, social equity, and stakeholder participation” (at pg. 9). ACWA and CMUA agree that some public water agencies, in particular the agencies that were invited to participate on the June 2016 panel, have made remarkable strides in moving beyond the focus of safe, reliable, affordable service into approaching the issues of embedded energy in water and GHG emissions reductions. However, this position does not reflect the reality of all of the water utilities in the state. We strongly suggest that language throughout the draft white paper be adjusted to reflect this reality.

- b. The draft white paper fails to recognize water system investments, technologies, and existing data sharing collaborations.*

The white paper opens with the statement that “dwindling water supplies and repeated droughts in the Western United States have highlighted the need for consumers, businesses, utilities, and government agencies to better manage this precious resource,” and that “these water sector stakeholders need improved mechanisms to proactively share data, insights, tools and solutions to achieve greater water systems optimization and improved efficiency” (at pg. 2). ACWA’s and CMUA’s public water agency members have been and continue to increase and ensure resilience for this and future droughts through significant investments in storage, new water supplies, and extensive water conservation programs. When available and appropriate, water agencies also pursue advanced metering infrastructure and other data analytics such as those highlighted in this

paper, but they are not always the most cost-effective way to address long-term conservation, and are just one approach that water agencies could potentially use to meet their objectives. Focusing on them as the single, preferred solution to long-term conservation is not reflective of the real situation that exists for many water agencies.

The draft white paper proceeds to declare that “unfortunately, there has been only limited software or systems development from business and technology sectors” (at pg. 11). This statement does not reflect the substantial investments made by both technology companies and water utilities in developing and piloting new applications. There are dozens of companies with existing software systems in this space, and even more companies in the innovation pipeline. These companies range from large, established companies such as GE and IBM, to startups in garages, and to accelerators like ImagineH2O that are assisting entrepreneurs advance their water-related technologies. Because water agencies have diverse technological needs and capabilities, the development and adoption of applicable solutions will take time.

Further, the draft white paper states that “...most agencies have a general lack of trust in sharing data with external partners” (at pg. 12). This is untrue: most water agencies currently participate in Integrated Regional Water Management and other stakeholder efforts with external interests that have the shared goal of advancing local and regional sustainability. The efforts include data sharing and the development of mutual solutions, and typically provide for a common understanding and objectives.

c. Existing efforts to collect and analyze data should be supported rather than initiate duplicative processes or legislative and regulatory actions.

On page 18, the draft white paper states that “a logical outcome of the workshop appears to be the establishment of a formal consortium of water utility participants...” The white paper also includes several references to potential regulatory and legislative actions that may be needed. ACWA and CMUA do not agree that either of these approaches is necessary. Not only are there are existing efforts to achieve similar objectives, regulatory and legislative approaches could undermine existing data sharing initiatives and act as a barrier to innovation and private investment. One of the most notable examples of an existing data sharing effort is the California Data Collaborative, a formal consortium of water agencies that are “dedicated to sharing water usage data to ensure water reliability.”¹ The Data Collaborative is a “bottom up approach” driven by water agency needs and is rapidly progressing towards achieving many of the goals outlined in the white paper. Because water agencies are fully invested in this approach, it is well-suited to understand and address their needs. We recommend revisiting the conclusion to develop a separate consortium and instead continue to support and engage with the California Data Collaborative.

d. The draft white paper overstates the value that data provides in the water agency rate-setting process, and does not adequately explain the data collection and sharing needs that are perceived to exist for water utilities beyond those already mentioned.

¹ <http://californiadatacollaborative.com/>

In addition to its potential value for water conservation efforts, the draft white paper refers to the value that data can offer to rate design. While data is essential for rate design and review, rate-setting is a complex undertaking that involves numerous local determinations. Water agencies must have the maximum degree of flexibility to develop rate structures that are effective for their communities while meeting the requirements of Proposition 218.

Beyond rate and conservation information it is unclear what data is sought from the water industry, how it would be used, with whom it would be shared, what protections would be in place to safeguard it, and how data integrity will be preserved. The white paper also does not address the risks to water agencies and their customers if water agency data is misused and/or not adequately protected.

- e. The draft white paper should use caution when drawing comparisons between the data needs of water and energy utilities, and should avoid suggesting expansion of the use of tools such as the Water-Energy Calculator beyond their original purpose.***

We agree that there are opportunities to collaborate and share information between energy and water utilities. In fact, many of our member agencies engage in robust programs with their energy counterparts to maximize the collection and use of data for a variety of purposes. However, it is important to recognize that the water sector is different in many ways from the energy sector, and this includes data needs. Unlike energy supplies, water supplies cannot be generated on a real-time basis. Therefore, the water sector requires site-specific, geographically based solutions to address factors such as water quality, reliability, infrastructure, operations, and energy intensity.

We also caution the white paper from suggesting that tools developed for investor owned utilities (“IOUs”) be expanded beyond their original intent. In the “Best Management Practices” section of the draft white paper, reference is made to the California Public Utilities Commission’s (“CPUC’s”) water-energy nexus calculator, which “helps energy utilities calculate their embedded energy in water” (at pg. 14). This calculator has been developed for a specific purpose, which is to support the CPUC’s water-energy nexus proceeding and IOU investments. The calculator should not be used as the basis for public water agencies’ investments or to answer broader policy questions, since water resources planning is very different from energy resources planning.

III. Conclusion

ACWA and CMUA member agencies recognize that sharing data with other water agencies, energy utilities and external stakeholders can provide multiple benefits. In fact, many water agencies already are or have plans to pursue innovative partnerships with their energy counterparts. However, the draft white paper identified some significant barriers that stakeholders will need to address in collaboration, and we look forward to working with entities like the California Data Collaborative and UC Davis Center for Water-Energy Efficiency to explore those opportunities.

Considering that the June 2016 workshop upon which this white paper was developed was jointly noticed under the Water-Energy Nexus proceeding at the CPUC, we assert that this draft paper should not be considered final or issued until we receive a response in regards to the comments that we have outlined above, or our comments are incorporated into the final white paper to fully reflect the varied perspectives from all workshop participants that were in attendance. If you should have any questions, please contact Rebecca Franklin, ACWA Regulatory Advocate, at 916-441-4545, or Danielle Blacet, CMUA Director for Water, at 916-326-5800.

Sincerely,



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Regulatory Advocate
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Danielle Blacet
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